CHAPTER 14

Information Management and Access

In fulfilling its statutory role regulating the sale, possession and use of pesticides in California, the Department collects extensive data on pesticide active ingredients and pesticide products. These data must be catalogued and stored to make them accessible to not only DPR staff, but also to individuals outside the Department, including County Agricultural Commissioners, pesticide users, scientists, other stakeholders, and the public. The growth of the Internet and particularly the World Wide Web in the late 1990s made managing information and ensuring access both a dynamic challenge and tremendous opportunity.

Data Library

The Pesticide Registration Branch manages the pesticide data library. Library staff catalog, index, and maintain data volumes received from pesticide registrants. The library houses some 50,000 volumes of data containing more than 163,000 studies. This includes studies which have been submitted to U.S. EPA; additional efficacy, safety and environmental data required by California; registration-related correspondence; and the original evaluation memoranda. Archived data are periodically referenced and reviewed as similar products are registered.

Although some data kept in the DPR library duplicate information housed at U.S. EPA, information on file at U.S. EPA headquarters in Washington, D.C., is not easily accessible to scientists at DPR and other state agencies for review, evaluation, and formulating recommendations and decisions. Library staff also responds to public requests for data and other information pursuant to special provisions of the California Public Records Act.

Label Resource Center

The Registration Branch also manages the Label Resource Center, which maintains all product files for pesticides registered in California, including Section 24(c) and Section 18 files. Only authorized persons may directly access these files since they contain proprietary information (primarily statements of formulation of pesticide products, which are considered confidential business information under federal law). However, Label Resource Center staff makes non-confidential information available to the public, registrants, County Agricultural Commissioners, DPR staff, poison control centers, the Legislature, and other government agencies. The center receives approximately 1,000 requests per month for copies or explanations of labels; registration status of products; and computer-generated label information searches for specific crops, commodities, sites, and methods of application. The center also provides information on U.S. EPA notices and registration standards. Inquiries on label interpretations are referred to the Pesticide Enforcement Branch.

Department Databases

Various computer programs, developed by DPR information technology staff in all branches, provide pesticide and registration information to DPR staff, other government agencies, and interested members of the public. DPR employs various databases in decision-making processes that involve the review and acceptability of pesticide data, the tracking of registration activities and mandated time frames, and the dissemination

Number of pesticide products registered in California:

- 1935: 3,500.
- 1945: 7,136
- 1950: 9,070
- 1956: 11,904 (about the same as in year 2000)

of information to governmental, private, and public sectors. To meet DPR's goals, objectives, and responsibilities for statewide pest management, DPR and County Agricultural Commissioners must have access to up-to-date information for all products registered for use in the State. In addition, to comply with recent legislation, DPR requires increasingly sophisticated and complex analyses of pesticide products. Databases associated with these tasks include:

Product/Label: Since the early 1970s, DPR has maintained a database on all pesticide products currently (and previously) registered for use in California. The database contains information on approximately 33,000 pesticide products. There are approximately 11,000 active products at any given time. An average of 1,000 new products are added to the database annually, and a similar number of products are inactivated due to nonrenewal, suspension, or cancellation. Between 2,000 and 2,500 label amendments are processed annually. Data fields in the product label database include: U.S. EPA or California registration number, product name, type of registration, type of pesticide, formulation, active ingredients, percent of each active ingredient, specific gravity, all commodity/crop/sites on which the product may be used, health and environmental hazards, target pests, and application instructions. Other information includes preharvest and reentry intervals, environmental hazards, and special application instructions. The product/label database is available to all DPR staff and the public via the Internet.

Chemical Ingredient: Queries for ingredients using name or chemical code, as well as registrants, pesticide products, and a daily report on registered active ingredients and product counts.

Chemical Company Name or Number and Chemical Company Address Information: Queries for names, addresses, product information, and the name of a DPR registration specialist assigned to the company's application requests.

U.S. EPA/OPP Queries: In cooperation with U.S. EPA's Office of Pesticide Programs (OPP), DPR provides access to brief registration information on approximately 89,000 federally registered products. The data include product number and name, company number and name, registration date, cancellation date and reason (if cancelled), and product manager name and phone number. In addition, OPP's databases containing chemical ingredient and firm information are now available. The chemical data is searchable by common, technical, synonym, chemical abstract (CAS) numbers, or trade names. The firm data is searchable by firm number, name, or portions thereof.

These chemical, firm, and product databases have complementary links and are searchable by multiple variables. The data is updated weekly and available on DPR's Internet site.

Section 18 Emergency Exemptions: Lists current emergency pesticide registration exemptions in California, their date of issue and expiration, and an Adobe Acrobat image file of DPR's letter of approval and label. *(See Chapter 3 for discussion of Section 18s.)*

Volatile Organic Compounds (VOC) Emissions Inventory: Data on emissions from agricultural and commercial structural pesticide applications, used in the State Implementation Plan (SIP). *(See Chapter 11 for discussion of VOC program.)*

Chemical Dictionary: This file is the central repository for basic information on chemicals contained as either active or inert ingredients in pesticidal products registered in California. Maintained by the Registration Branch, the database contains trade names and synonyms useful when dealing with nomenclature problems, CAS numbers, and links to other data sets. This database is also available on DPR's Web site and links to U.S. EPA's master chemical database

Pesticide Registration Tracking: Maintained by Pesticide Registration Staff, this database tracks all business transactions performed on submissions received from pesticide registrants. The database has been active since 1986 and has tracked an average of 5,000 to 7,000 submissions each year, monitoring the status of 3,000 to 4,000 submissions at any given time. The database is used to assess workload, monitor time frames, and is also used to produce required California Environmental Quality Act (CEQA) notices to stakeholders. This database was converted to a Web-based format in 1999 and is available throughout the Department on DPR's intranet.

Representations must be restricted to facts.
– 1936 Department annual report

Pesticide Registration Licensing/Renewal: This Web-based application is used to generate yearly renewals and licenses for all products registered in California. The Permit Reform Act requires the Pesticide Registration Branch to track renewal processing performance relative to mandated time frames and report yearly on said performance. This application acts as the front-end to the Product/Label Database and provides licensing status and license images to staff via the Department's intranet.

Pesticide Residue: Maintained by DPR's Enforcement Branch, this database records information collected by the Department's residue monitoring program about pesticide residues found on commercially available products grown in California and imported from other states and countries. In a typical year, more than 7,000 samples are collected and tested for multiple pesticides. *(See Chapter 8 for a discussion of the residue monitoring program.)*

Pesticide Use Reporting (PUR): Tracks all reported pesticide use in California since 1990. *(See Chapter 10, Pesticide Use Reporting.)* PUR data is released annually and is accessible to the news media, researchers, and the general public. Annual summaries of the statewide PUR data are available from DPR in hard copy or floppy disk formats for a nominal charge. A CD-ROM with the entire annual database (2.5 million records and associated tables) is also available. Statewide summaries of chemicals and commodities are available free online, and the database may be queried for county-by-county data as well. There is also a "top five" list of chemicals and commodities for each county, based on cumulative pounds of pesticides applied.

In May 2000, DPR sponsored a one-day seminar on uses of the PUR data, providing a forum for researchers and other data users. The Department also received funding in the fiscal 2000-01 budget to create a Web site that will provide interactive search-and-query capabilities to enable the public to get localized pesticide use information.

Surface Water: Provides an archive for more than 46,000 pesticide sampling results from surface waters throughout the state since 1984. Samples have been collected in fresh, estuarine, and saline waters, including rivers, streams, canals, ponds, lakes, bays, estuaries, sloughs, runoff from fields, tailwater recovery basins, and agricultural drains. Sampling data may be used for (1) designing monitoring programs, (2) exchanging information with other agencies, and (3) implementing, in part, an agreement between DPR and the State Water Resources Control Board (SWRCB).

DPR and the SWRCB signed a Management Agency Agreement (MAA) in March 1997 to protect water quality related to the use of pesticides. In order to implement the MAA, DPR and SWRCB staff developed the California Pesticide Management Plan for Water Quality. As outlined in the Plan, DPR and SWRCB staff agreed to exchange results of chemical analyses and biotoxicity tests for pesticides in samples from California surface waters. Further, DPR agreed to develop and maintain a database of those results. In 2000, DPR released the database on CD-ROM. *(See Chapter 11 for information on DPR's Surface Water Program.)*

Well Inventory: A unique archive of ground water sampling information which summarizes monitoring results conducted by State, local, and private sampling agencies. Maintained by the Environmental Monitoring Branch, this database in 2000 contained sampling results from 19,725 wells throughout California's 58 counties, including results for more than 300 chemicals. Data can be obtained for unique wells, geographic areas, chemicals, analytical results, or sampling agency. When known, well construction information is included. *(See Chapter 11 for discussion of DPR's Ground Water Program.)*

Endangered Species Project: Provides pest control operators and other interested parties with information on specific pesticide use limitations that protect listed species. The online, interactive database receives queries first by county, then by section, and finally by individual township. The results are displayed on screen as map images. Within sections, the database identifies listed species that may be present and provides a list of pesticides with use limitations for those listed species. Users query the database for pesticides they plan to apply, and the database provides use limitations that apply in each section. The report also includes a depiction of the species (if the species affects any pesticide use).

These are good laws and everyone knows they work. Under them, the Department has endeavored to work with vision and does those things that are generally accepted as honestly sound by the best informed persons.
– 1938 Department annual report

The Endangered Species Project online pages also provide extensive background information from DPR, U.S. EPA, and other government agencies on threatened species and their habitat. These include county-by-county guideline documents on pesticide use limitations; land use maps for selected California counties that show urban development trends; reports on pesticide use near habitats, linking data from the California Department of Fish and Game with DPR's Pesticide Use Report; and the Endangered Species List Server, a free service for receiving e-mail announcements on new endangered species, interim measures bulletins for California, and other pesticide-related endangered species information. *(See Chapter 11 for discussion of DPR's Endangered Species Program.)*

Enforcement Monitoring: In 1997, the Legislature provided funding to create the Enforcement and Compliance Action Tracking System (EnfAct), a comprehensive database of compliance and enforcement actions on agricultural pesticide applicators, dealers, and advisers. The goal was to improve supervision of license and certificate holders ('licensees'), particularly those with multiple licenses who may also operate in multiple counties.

DPR expanded the database's scope beyond the initial four license categories to track enforcement and compliance actions in all nine licensing and certification programs managed by DPR's Enforcement Branch, in addition to the certified private applicator program administered by County Agricultural Commissioners.

In the project's first phase, all licensing records for an individual or business were consolidated into a single file management system, requiring the physical handling of some 15,000 individual and business records. Concurrently, the central license administration database was redesigned and updated to support the central filing system, and to ensure data compatibility and format consistency. This was completed in May 1998.

In the second phase, DPR began receiving compliance action summary data and partially implemented the installation of the wide-area network. Approximately 5,000 enforcement and compliance action summaries were collected the first year under the new reporting system.

When the system is completed in 2001, DPR will begin collecting and tracking incidents of noncompliance noted during pesticide inspections. All incoming data will be validated and uploaded to a central database at DPR headquarters. Regional Office staff will have access to all program information resources. Basic access to enforcement action tracking and central licensing databases (by individual, by business, by county, etc.) will be available to interested persons by Internet Web data query menus and Public Information Act requests.

DPR staff will use the database to review the compliance history of licensees before approving or renewing a State pesticide license. Tracking data will be also reviewed to monitor the performance of county enforcement and compliance programs at a statewide level in accordance with FAC Section 12844.

DPR on the Web

In October 1995, DPR launched its Web site, http://www.cdpr.ca.gov. The site offers extensive information about the Department and its activities. Users may subscribe to e-mail delivery of news releases, notices to registrants, proposed rulemaking packages, and information on endangered species. Interested persons may also submit electronic comments on rulemaking.

The site also offers access to DPR database resources, including product/label information, chemical ingredient information, chemical company information, and product/chemical databases developed by the U.S. EPA.

Other Web page features include:

- Current and archived news releases
- Pesticide enforcement, licensing and certification requirements
- Consumer fact sheets
- DPR publications and reports
- Legislation, regulation, and planning documents

> ***Technology has the potential to revolutionize the internal operations of the State, and the way it serves citizens as customers… While not a panacea for all governmental and social problems, emerging technologies, wisely used, offer immense opportunities to address needs and provide services that up to now have been beyond the capacity of state government***
> *– Little Hoover Commission, "Better Gov: Engineering Technology-Enhanced Government"*

- Details on reduced-risk pest management practices
- A directory of DPR staff and County Agricultural Commissioners
- Pesticide use reporting data
- Links to other government and educational pesticide Web sites.

Establishing an E-Government Environment

In 1999, the Davis Administration made improving the efficiency and effectiveness of State government one of its priorities, with a key focus on electronic transactions and interaction to leverage technology to serve the needs of the State's residents. In September 2000, Governor Davis issued an Executive Order directing all State agencies and Departments to develop e-government implementation plans that "shall include a description of the most widely used services at each agency's departments, identify those best suited for electronic delivery, identify the population served by these services, and include a description of current or planned systems to measure the level of customer satisfaction with the identified services." The Executive Order defined e-government as "the provision of services and information by state government to the public through the Internet, integrated Internet-based technologies, and voice and data technologies dependent on the Internet." Furthermore, the Executive Order acknowledges that "appropriate implementation of e-government provides for enhanced access to government information, delivery of government services and participation in the democratic process through secure electronic technology designed to protect privacy" and that "the coordinated development of e-government will act as a catalyst to re-engineer current practices and aid State agencies and departments to design better ways to provide government services."

Months before the signing of the Executive Order, DPR began planning a major upgrade of its Internet presence to make better use of information technology to enhance the access to and delivery of its services to benefit citizens, the regulated communities, government partners, and employees. In September 2000, DPR engaged a consulting firm to conduct a business process analysis and management study and recommend selected business processes that could be migrated to the Internet. Understanding the new imperatives of establishing a virtual service delivery environment requires building rational structures around the needs of consumers, registrants, pesticide users, and others, moving from simple information sharing to more customer-oriented service, integrating technology across multiple functions and enabling a two-way flow of information. DPR's goal is to integrate the Internet into daily government operations and service delivery, applying information technology in a way that effectively integrates policy goals, organizational processes, information content, and technology tools so they work together to achieve programmatic and public policy goals. This new environment will allow DPR to put enterprise data, applications, and processes at the fingertips of Web-enabled employees and external stakeholders. The goal is to ensure that information provided and transactions made are clear, concise, timely, useful, cost-effective and secure.

> ***Governments today have no choice but to aggressively pursue an all-encompassing shift from traditional to online service delivery. To do otherwise places them in jeopardy of falling below minimally acceptable standards of service.***
> *– Janet Caldow, Director, IBM Institute for Electronic Government*